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ABSTRACT

This document discusses the use of process induction and the proactive action model to teach research skills across the social studies curriculum. Process induction is the ability of an individual to transfer schema related knowledge and skills to other situations and settings, to use knowledge and process skills in new and diverse instances to solve problems and resolve conflicts. The proactive action model (PAM) can be used to nurture and enhance students' inquiry and discovery in classrooms and at field based research sites. The true value of knowledge and skills acquisition is its transferability. The transferability quality of social studies content, concepts, subject specific knowledge, and process related skills, is what makes it relevant in the lives of individuals. Students in the middle grades, typically grades 5-8, should be involved in a 4 step induction process: (1) acquisition or the accumulation of concepts, facts, and other information and skills; (2) application or using that which has been acquired to enhance learning and enrich intellectual skills development; (3) reinforcement or the continuous application of innate and acquired skills and knowledge to new situations in diverse settings; and (4) refinement or repeated application of knowledge and skills to new situations resulting in an individual's ability to demonstrate competency or proficiency at some prescribed level. The paper discusses directed learning environments, independent learning environments, and application environments, and how they may be utilized in social studies. Contains 14 references. (Author/DK)

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PROCESS INDUCTION

Researching Skills Development Across the Social Studies Curriculum

MIDDLE GRADES

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Richard Peters, Ed.D.

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WHAT IS PROCESS INDUCTION?

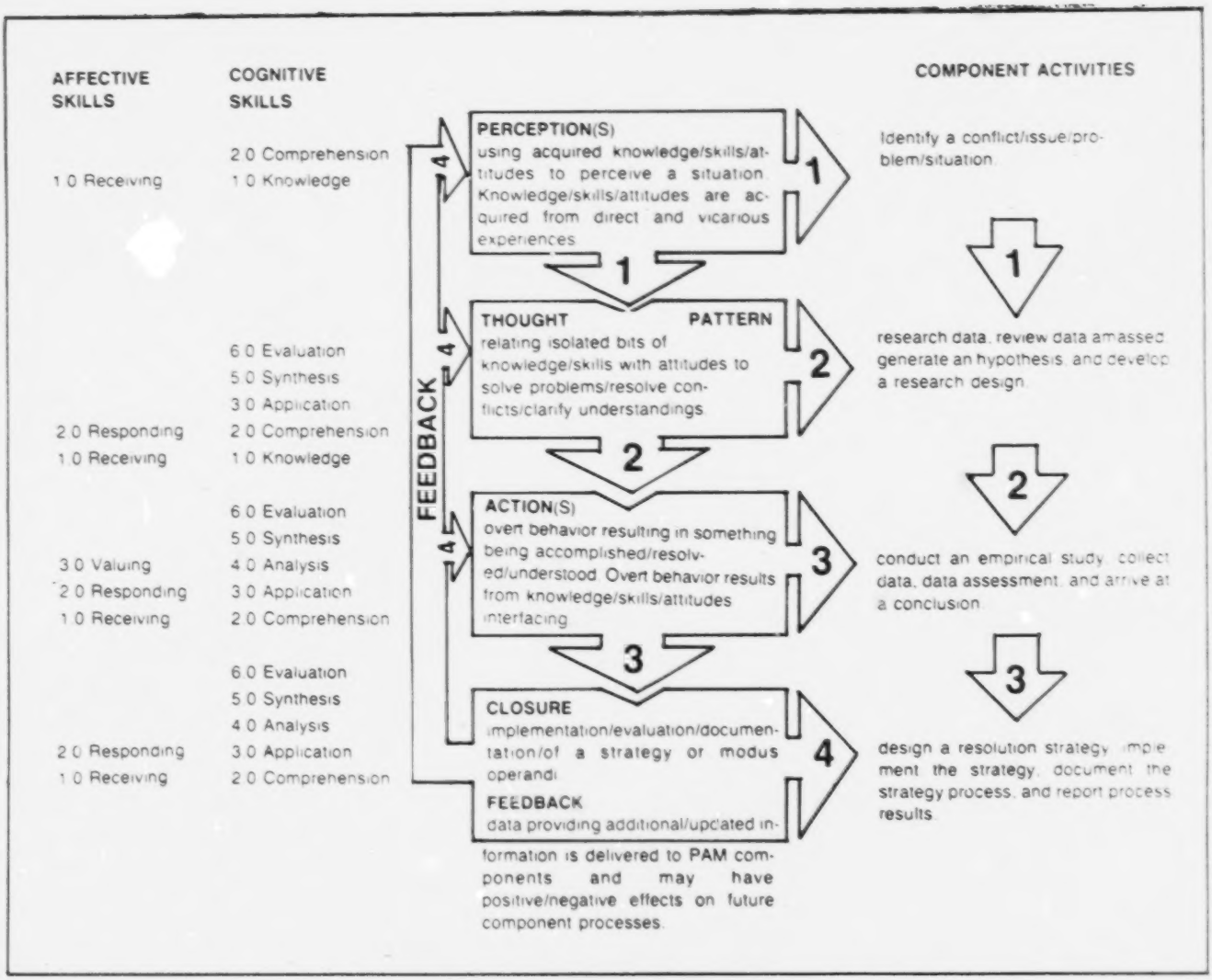
PROCESS INDUCTION is the ability of an individual to transfer (apply) schema-related knowledge and skills to other situations and settings -- to use knowledge and process skills in new-and-diverse instances to solve problems and resolve conflicts.

WHAT IS THE PROACTIVE ACTION MODEL?

The Proactive Action Model (PAM) can be used across the K-12 social studies curriculum to nurture and enhance students' inquiry and discovery in classrooms and at field-based research sites. (DIAGRAM I)

Once students have developed schema utilization proficiency, they can use PAM in different ways - in diverse situations and settings - to confront and deal with conflicts, issues, and problems related to academic and real world 'things'.

PROCESS INDUCTION is the vehicle for continued learning and enables individuals to adapt to life's surprises.



PROACTIVE ACTION MODEL (PAM)

A modified 'scientific method' schema used across the curriculum to promote students' inquiry and holistic thinking - while enhancing critical thinking, decision-making, and problem solving skills development.

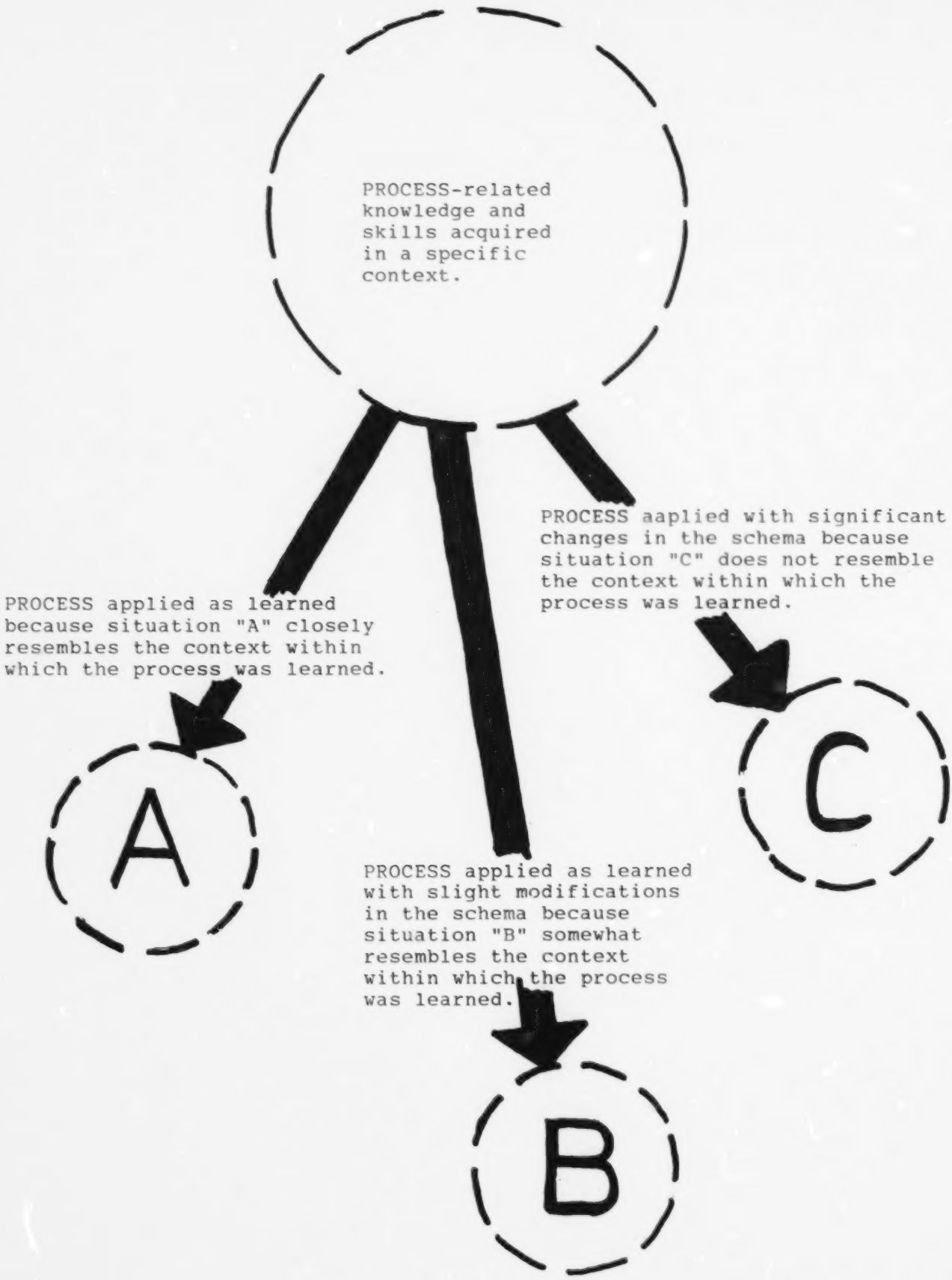
A CLOSE-UP LOOK AT PROCESS INDUCTION

PROCESS INDUCTION can only occur when the individual(s) manipulating the schema process possesses innate qualities and applies them to tasks-at-hand, e.g., common sense, intuition, recall of acquired knowledge relevant to the new situation and/or setting, perceptions, and interest.

The task is to assess the new situation and/or setting and determine the degree to which the acquired schema skills/processes apply.

How closely does the new situation and/or setting resemble the situation and/or setting in which schema skills proficiency was achieved? PROCESS INDUCTION success will be determined by the degree that the individual can manipulate schema properties (characteristics or components) to 'fit' the particulars of the newly confronted situation and/or setting -- as related to academic or real world 'things'.

SEE PAGE 4


PROCESS-related knowledge and skills acquired in a specific context.
PROCESS applied as learned because situation "A" closely resembles the context within which the process was learned.
PROCESS aaplied with significant changes in the schema because situation "C" does not resemble the context within which the process was learned.
PROCESS applied as learned with slight modifications in the schema because situation "B" somewhat resembles the context within which the process was learned.
A
B
C

KNOWLEDGE/SKILLS ACQUISITION AND APPLICATION

The true value of knowledge and skills acquisition (learning) is its TRANSFERABILITY (induction) to new-and-diverse situations and settings in the classroom. laboratory setting, at field-based sites, and in daily living.

The transferability quality of social studies content (concepts, subject-specific knowledge, and process-related skills) is what makes it relevant in the lives of individuals. The more a student can use that which is learned in structured situations -- the greater the perceived value of that learning (and specifically - the concepts, knowledge, and skills) to life in the community and beyond.

As students live the MIDDLE GRADES (typically 5-8), they should be involved in a four step INDUCTION process - as related to social studies education.

ACQUISITION: the accumulation of concepts, facts and other information, and skills through teacher-directed instruction; independent and small group inquiry; audiovisual presentations; technology; direct and vicarious encounters.

APPLICATION: using that which has been acquired through direct and vicarious encounters to enhance learning and to enrich intellectual skills development, i.e., critical thinking, decision-making, and problem solving.

REINFORCEMENT: the continuous application (use) of innate and acquired skills and knowledge to new situations in new/diverse settings. The process of honing the intellect through repeated application and practice. Knowledge and skills are internalized -- becoming part of one's being.

REFINEMENT: repeated application of knowledge and skills to new/diverse situations resulting in an individual's ability to demonstrate competency or proficiency at some prescribed level or degree of achievement or performance.

ALPHABET SOUP

As students progress through the MIDDLE GRADES, they should be directly engaged in a variety of classroom and field-based encounters -- each structured to accommodate goals and objectives, students' learning styles, and assessed abilities.

DIRECTED LEARNING ENVIRONMENTS (DLEs)

Alone or in Learning Enhancement Teams (LETs), subject matter teachers design and execute teaching/learning encounters that place them at the focal point of student/teacher interaction.

Using lectures, demonstrations, audiovisual presentations, guest speakers, guided tours, field trips, and team teaching strategies, the teacher(s) present information and manage/monitor students' activities and skills development.

INDEPENDENT LEARNING ENVIRONMENTS (ILEs)

Encounters designed by teachers/LETs to directly involve students in the inquiry and discovery process.

In ILEs, students are encouraged to make critical decisions; to apply previously acquired knowledge and skills; to apply higher level cognitive processes to encounters; and to critically evaluate that which is accomplished.

In LETs, grade-level teachers (from the social studies and other theme-related subjects) design learning encounter menus. Each thematic menu provides students with a variety of activities and experiences geared to personal interests, assessed abilities, preferred learning styles, and different combinations of multiple intelligences. Thus, students can achieve common goals in a variety of preferred ways.

INDEPENDENT LEARNING ENVIRONMENTS

DIRECT EXPERIENCE ENVIRONMENTS

Students interact with real people, places, things, events, and processes in authentic settings; natural and social (human-made) locations/sites.

Personal perspectives and understanding are developed as a result of direct experiences and associated reflections.

DEEs can encompass natural and social phenomena that are nearby/close to home and somewhat distant/removed.

SIMULATED EXPERIENCE ENVIRONMENTS

Students interact with people, places, things, events, and processes indirectly -- through storytelling, audiovisual presentations, listening to guest speakers, readings, and/or role playing.

Often times, SEEs are the only way that students can gain knowledge and hone perceptions/ understanding because natural and social phenomena and processes are distant/far-removed or settings would constitute a hazard to students' health and general welfare.

APPLICATION ENVIRONMENTS (AEs)

The place (LOCATION) and environment (CONTEXT) in which students' inquiry and discovery takes place will influence:

students' learning styles and their choice of multiple intelligences to be applied to preferred encounters.

the type(s) of activities and experiences that students can become engaged in - in classrooms and at field-based sites.

the amount of time required to complete preferred encounters.

the materials/resources used by students to inquire and discover.

the authenticity of encounters.

the transferability of experiences and knowledge/skills to new/diverse situations and settings.

students' attitudes toward
menu encounters.

RELATING THE ACQUISITION/APPLICATION PROCESS TO SOCIAL STUDIES

A well-balanced MIDDLE GRADES social studies curriculum would introduce student to/involve them in studies related to selected concepts, content knowledge, and skills gleaned from the typical social science disciplines and others; namely, anthropology, economics, geography, geology, history, political science, psychology, and sociology. Such a curriculum blending would expose students to a variety of problem solving approaches (to enhance their problem solving skills), and would help them to build perceptual bridges among the diverse disciplines (a holistic sense of discipline connections).

The essence of the learning process is to discover people, places, things, events, and processes not previously perceived and understood, and the incorporation of new concepts, knowledge, and skills into the warehouse of prior experiences -- resulting in an expanded understanding of previously unconnected bits-and-pieces of information.

ACQUISITION: formal/informal introduction
to natural/social settings and
related phenomena/processes.

direct/vicarious interaction
with natural/social phenomena

and related processes.

understanding of newly discovered phenomena and processes.

STORAGE: to logically connect newly acquired concepts, knowledge and insights with previously acquired concepts, knowledge and insights.

RETRIEVAL: the ability to recall or 'get things out of storage' when necessary.

the ability to make associations between present situations and that which has been previously acquired.

APPLICATION: applying recalled/retrieved data to new/diverse situations. Task accomplishment or understanding might be goals to achieve.

RELATING PAM AND PROCESS INDUCTION TO MIDDLE GRADES SOCIAL STUDIES ENCOUNTERS

To be 'in the environment' does not mean that an individual must take to the hills and commune with nature on some philosophical plane. IN THE ENVIRONMENT means to be actively involved with one's immediate lifespace environment/setting.

In the social studies, MIDDLE GRADES students will gain exposure to history, civics/government, and geography as well as (hopefully previously mentioned subjects such as economics and sociology.

MIDDLE GRADES students need to be formally introduced to:

culture traits -- customs, lifestyles, beliefs, and values of human groups.

natural environments -- settings that evidence NATURE's processes and related phenomena.

social environments -- human-made settings and related phenomena and processes.

citizenship skills -- those attitudes and behaviors that enable individuals to function with social groups.

community service -- efforts to contribute to the betterment of the social group and individual members of society.

stewardship -- a quality of nature sensitivity that leads individuals to have empathy for the plight of NATURE, and causes them to act in ways so as to benefit NATURE's processes and related phenomena.

PAM

The properties of the Proactive Action Model include Perception(s), Thought Pattern(s), Action(s), and Conclusions/Closure. Feedback provides a spring board for future thought and action on the part of individuals and groups.

In the MIDDLE GRADES social studies curriculum, PAM can be used to nurture research skills development among students -- as they function in small groups or conduct independent studies.

Student involvement in community service projects enables them to interact, directly, with phenomena and processes related to natural and social environments.

As a result of direct participation in community service activities, students better understand contemporary issues and problems facing MAN and NATURE.

MAN and NATURE are inextricable entities sharing a common lifespace -- EARTH! When MAN and NATURE cannot coexist in cooperative living habitats environmental rift occurs. As a result of such rift, MAN and/or NATURE suffers.

Thus, within the context of the local community/ surrounding region, students can be introduced to situations that pose a threat to the safety and welfare on natural and/or social environments. The PAM schema can be used to focus students' attention on issues, and provides a vehicle by which they can role play researching natural/physical and social scientists (in classrooms, laboratories, or at field-based sites).

CONCEPT ADEQUATE LIVING SPACE

GOAL(S) Students will:

understand the need for humans to have elbow room; space in which each can develop and prosper.

understand the need for NATURE-related phenomena and processes to have room in which to develop, prosper, and function.

understand the need for humans to be concerned for the plight of NATURE, and aware of NATURE's need for adequate space.

understand that space can be used for a variety of purposes and processes.

understand how living space is ensured for MAN and NATURE, locally.

understand MAN's practices to continuously provide adequate living space for growing numbers of the species, worldwide.

ENCOUNTERS

Audiovisual presentations will formally introduce students to the topic: adequate living space -- on a global scale.

Students will read about past and present efforts, worldwide, to provide adequate living space for growing numbers of the species.

Students will read about/hear about (from guest speakers) MAN's practices and policies to provide adequate living space for humans.

Students will read about/hear about MAN's policies and practices to safeguard adequate natural living spaces.

Students will take guided tours and field trips to selected areas to observe and learn about efforts to safeguard adequate living space for MAN and NATURE.

Students will design bulletin board displays depicting the topic as it relates to local policies and practices.

Students will involve themselves in community campaigns to protect living space for MAN and NATURE.

Students will spearhead community efforts to protect adequate living space for MAN and NATURE.

Students will write poems and songs depicting the plight of NATURE in the local community.

Students will produce film/video documentaries depicting the plight of MAN in the local community.

Students will write letters to the editor of the local/area newspaper(s).

Students will design/write columns for the local/area newspaper(s).

Students will develop/present adequate living space proposals to community groups, clubs, special interests, and elected officials as well as government agencies.

PAM PROCESS INDUCTION

Having been directly involved in the ADEQUATE LIVING SPACE unit, students have developed an understanding of how the Proactive Action Model works, and how it can be manipulated/molded to serve a particular research need that students might have -- at any given moment in time.

PROCESS INDUCTION is the ability to transfer knowledge and skills from one situation or setting to others that might be exactly like the situation/setting in which the PROCESS skills were acheived ("A"), somewhat like the skills development situation ("B"), or nothing like the original situation/setting ("C") as discussed on Page 4.

CONCEPT MALL CONSTRUCTION

GOAL(S) Students will:

understand the impact that a new shopping mall will have upon the local economy.

understand the need to clear the land (at the selected site) for mall construction and parking space.

understand the intrusion of MAN into NATURE's realm for purposes of mall construction.

understand that mall construction will lead to an increase in the population of the community -- as individuals/families move closer to work.

understand the impact of increased population on local community services.

understand the impact of increased population on natural settings in the community.

ENCOUNTERS

Students will collect mall construction-related articles from the local/area newspaper(s) and create a bulletin board display.

Students will attend public meetings to hear about the pros-and-cons of mall construction in the community.

Guest speakers (representing a diversity of views and interests) will discuss mall construction with the class.

Students will visit the proposed mall site and observe the natural setting.

Representatives of the local business community will explain the economic benefits of having a mall in the community.

Students will conduct library and newspaper office research -- as they collect articles/stories about the positive/negative effects of mall construction in other similar communities.

Students will discuss land use planning and zoning policies (as related to mall construction) with elected officials and government agencies.

FOR YOUR INFORMATION: RESOURCES/REFERENCES

Burns, S. F. (1991). Activities for developing sensory awareness. Nature Study 44, 30-31.

Campbell, B. (1992). Multiple intelligences in action. Childhood Education, 69, 197-201.

Chamberlin, L. J. (1991). A brain primer for educators. The Clearing House, 64, 228-231.

Cohen, E. (1992). Promoting ecological awareness in children. Childhood Education, 68, 358-360.

Dighe, J. (1993). Children and the earth. Young Children, 48, 58-63.

Dunn, K. and Dunn, R. (1978). Teaching students through their individual learning styles. Englewood Cliffs, NJ: Prentice-Hall.

Gardner, H. (1983). Frames of mind: the theory of multiple intelligences. New York: Basic Books, Inc.

(1993). Multiple intelligences: the theory in practice. New York: Basic Books, Inc.

FOR YOUR INFORMATION: RESOURCES/REFERENCES (CONTINUED)

Hart, L. A. (1983). Human brains and human learning. New York: Longman.

Hoot, J. (1993). Promoting ecological responsibility. Childhood Education, 69, 150-155.

Palmer, C. (1991). Educating for the environment. Educational Leadership, 48, 65-66.

Peters, R. (1993). Nurturing an environmental and social ethic. Childhood Education, 69, 72-73.

Ramsey, J. M. (1992). Environmental education in the k-12 curriculum. Journal of Environmental Education, 23, 35-45.

Viezzer, M. (1992). Learning for environmental action. Convergence, 25, 3-8.